



Air Mask Upgrades [NFPA 1981-2002 Edition]

MSA



Nightfighter Heads-Up Display

Upgrading your MSA Air Mask to the 2002 Edition of the NFPA 1981 Standard has never been easier.

The new edition of the standard requires the addition of:

1. Heads-Up Display
2. Rapid Intervention Crew/ Universal Air Connection

MSA has established an ATO ordering matrix (see page 4) to insure that you receive the right components to upgrade your model of MSA SCBA. In addition, the ATO matrix allows you to select the configuration of transmitter and Quick-fill URC system that best suits your needs.

1. Nightfighter™ Heads-Up Display (HUD) Transmitter Assembly

The first component in the upgrade kit is the Nightfighter Heads-Up Display (HUD) Transmitter. There are three ordering options for the transmitter:

1. **Standard transmitter** →
2. **Transmitter with a male Quick-Fill port *less male Quick-Fill fitting*.** This option is designed for those Shoulder-Mounted Quick-Fill users that want to retain this feature, transferring the male Quick-Fill fitting from their present shoulder manifold to the transmitter manifold assembly. This connection is in *addition* to the Quick-Fill URC connection in the Audi-Larm assembly.
3. **Transmitter with male Quick-Fill fitting installed.** This option is for those who elect to add the male Quick-Fill connection to the shoulder-mounted position. This connection is in *addition* to the Quick-Fill URC connection in the Audi-Larm assembly.



Standard Transmitter Assembly

Facepiece Bracket

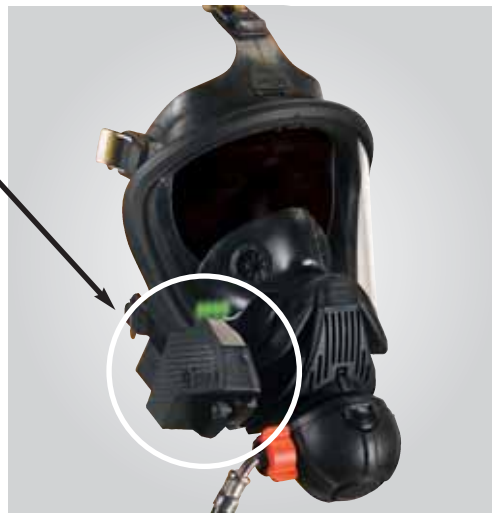
The second component of the upgrade kit is the Ultra Elite® HUD Facepiece Bracket. The bracket is easily installed onto the Ultra Elite facepiece. The bracket is located on the right-hand side of the facepiece (user's perspective) and is attached at two anchorage points, the lens ring and the inhalation cover assembly.



HUD Facepiece Bracket

Nightfighter Receiver

The third component is the Nightfighter HUD receiver. The HUD receiver mounts onto the Ultra Elite facepiece bracket and is held in place by a spring-loaded thumbscrew. The Nightfighter receiver system has been designed to be easily transferable from one firefighter facepiece to another. Simply undo the receiver's thumbscrew, remove the receiver and attach it to another facepiece. It's that simple!



HUD Receiver on Facepiece

2. Rapid Intervention Crew/Universal Air Connection*

Quick-Fill URC

The second item in the upgrade to the 2002 Edition of NFPA 1981 is an Audi-Larm™ Audible Alarm equipped with a Quick-Fill® URC connection. The Audi-Larm is available in two ordering options:

1. **Audi-Larm with Quick-Fill fitting and self-resetting pressure-relief valve.**
2. **Audi-Larm less Quick-Fill fitting and self-resetting pressure-relief valve.**
This option is for those Shoulder-Mounted Quick-Fill users that want to transfer the male Quick-Fill fitting from their present shoulder manifold to the Quick-Fill URC port in the Audi-Larm housing.



Quick-Fill URC Connection

**Note: Audi-Larm less URC fitting must be selected for those who currently have Quick-Fill shoulder manifold if upgrading to 3000 psig system. Quick-Fill system is not compatible with 3000 psig system.*

Upgrading NightFighter HUD to MSA Air Masks Equipped with Dragonfly/Redundant Alarm

Adding the Nightfighter transmitter onto the gaugeline requires splitting the Dragonfly Integrated PASS device and Redundant Alarm combination. Follow this procedure:

1. After removing the Dragonfly/Redundant Alarm, install the Nightfighter HUD transmitter onto the gaugeline over the user's right shoulder. Thread the Redundant Alarm into the HUD transmitter housing.
2. An additional high-pressure hose splits off the inlet into the first-stage regulator and is routed over the user's left shoulder. The Dragonfly Integrated PASS is attached to this high-pressure hose and a plug is inserted into the outlet where the Redundant Alarm was threaded into the Dragonfly's pressure switch.

Upgrading Quick-Fill URC to MSA MMR Air Masks Equipped with Black Rhino Harness and Carrier

The Vulcan-style Audi-Larm with a Quick-Fill URC feature requires a new, longer high-pressure hose be installed on the MMR Air Mask when a Black Rhino Harness with either the Redundant Alarm or ICM 2000 option is selected. The kit will include this new high-pressure hose assembly. Orders that select the Black Rhino Harness with Dragonfly PASS/Redundant Alarm combination will not require this new high-pressure hose assembly be installed.

All upgrade kits include User Installation Instructions, Instructions for the Care and Use of the Nightfighter Heads-Up Display and the Quick-Fill URC Systems as well as a new NFPA 1981-2002 Edition approval label.

**Note: Quick-Fill not available for MMR Xtreme 3000 Air Mask (3000 psig operating system)*

The Assemble-To-Order System

There are hundreds of possible combinations of NFPA upgrading components, and to make sure you get exactly what you need, MSA developed this ATO system.

In the first four columns, you provide information about the MSA Air Mask you are

currently using. The remaining two columns (in red) let you select the configuration of components you desire. The ATO ordering number generated provides all the information and components needed to upgrade your MSA Air Mask to the 2002 Edition of the NFPA 1981 standard. (See minimum SCBA requirements for upgrading).

Minimum SCBA Requirements for Upgrading

MSA Air Masks must meet the following minimum requirements before they can be upgraded to the 2002 Edition of the NFPA 1981 Standard. Upgrading an air mask that does not meet these minimum requirements will void all previous NFPA approvals.

The minimum requirements are:

Mask-Mounted SCBA

- Compliant to NFPA 1981-97 Edition
- Ultra Elite Facepiece with noseclip
- Split-hose design (gaugeline over right shoulder)

Belt-Mounted SCBA

- Compliant to NFPA 1981-97 Edition with Redundant Alarm
- Ultra Elite Facepiece with noseclip
- Standard breathing tube PN 801165

Regulator Type (In Use)		Operating Pressure (Upgrade To)	Carrier & Harness (In Use)		Gauge/Integrated PASS (After Upgrade)		Quick-Fill System (In Use)		Transmitter Type (Being Ordered)		Audilarm/URC Assembly (Being Ordered)	
M	Mask-Mounted	1 Low Pressure (2216 psi)	1	Black Rhino MMR	1	DragonFLY/ Redundant Alarm	1	Without Quick-Fill	1	Standard Transmitter	1	Audi-Larm with URC fitting installed
B	Belt Mounted	2 Medium Pressure (3000 psi)	2	Black Rhino BMR	2	ICM 2000	2	With Quick-Fill	2	Transmitter with Quick-Fill Port (less fitting)	2	Audi-Larm less URC fitting (installed by user)
		3 High Pressure (4500 psi)	3	Vulcan	3	ICM 2000 with Thermistor	3		3	Transmitter with Quick-Fill fitting installed		
					4	ICM 2000 PLUS	4					
					5	ICM 2000 PLUS with Thermistor	5					

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**Note: 2216psi and 3000 psi SCBA are not interchangeable. Due to NFPA 1981-2002 standards, all SCBA must be dedicated systems at 2216 psi, 3000 psi or 4500 psi.*

Note: This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.



ID 0105-106-MC / Aug 2004
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Corporate Headquarters
P.O. Box 426, Pittsburgh, PA 15230 USA
Phone 412-967-3000
www.MSAFire.com

U.S. Customer Service Center
Phone 1-877-MSA-FIRE
Fax 1-800-967-0398

MSA Canada
Phone 800-MSA-2222
Fax 905-238-4151

MSA Mexico
Phone 52-55 21 22 5770
Fax 52-55 359 4330

MSA International
Phone 412-967-3354
FAX 412-967-3451

Offices and representatives worldwide
For further information:

